



NEA1402

NDA1402

autodefrost

INSTALLATION MANUAL

FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

POUR VOTRE SÉCURITÉ

Si vous sentez une odeur de gaz:

1. Ouvrez les fenêtres.
2. Ne touchez à aucun interrupteur.
3. Éteignez toute flamme nue.
4. Avertissez immédiatement votre fournisseur de gaz.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ni utiliser de l'essence ni d'autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

⚠ AVERTISSEMENT

Une installation, un réglage, une modification, une réparation ou un entretien non conforme aux normes peut entraîner des blessures ou des dommages matériels. Lisez attentivement le mode d'emploi fourni avec l'appareil. Pour obtenir de l'aide ou des renseignements supplémentaires, consultez un installateur ou un service d'entretien qualifié ou le fournisseur de gaz.

⚠ WARNING

If the refrigerator stops cooling - or - if ammonia emanates from it, immediately turn the refrigerator off and contact a Service Center.

⚠ AVERTISSEMENT

Si le réfrigérateur cesse de refroidir - ou - si de l'ammoniac s'en dégage, arrêtez immédiatement le réfrigérateur et contactez un centre de réparation.



USA

Service Office
Dometic, LLC
2320 Industrial Pkwy.
Elkhart, IN 46516
Phone: 574-294-2511

Corporate Office
2320 Industrial Parkway Elkhart, IN 46516

For Service Center Assistance
Call: 800-544-4881

CANADA

Dometic, LLC
46 Zatonski, Unit 3
Brantford, ON, N3T 5L8
CANADA
Phone: 519-720-9578

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SYMBOLS

The following symbols are used throughout the manual:



Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



Used without the safety alert symbol indicates, a potentially hazardous situation which, if not avoided may result in property damage.



Information



Step-by-step instructions

This product is manufactured under license of U.S. Patent Number 6,019,447.

Patents pending
U.S. 10/619,675
U.S. 10/620,177
U.S. 10/758,174
U.S. 10/758,175
U.S. 10/760,564
U.S. 10/760,565

INTRODUCTION

This manual describes how to install NEA1402 (all-electric operation) and NDA1402 (2-way operation). These models can be equipped with an ice maker, an ice dispenser or ice & water dispensers.

The information in this manual is intended for qualified technicians with knowledge and experience of absorption refrigerators and LP gas systems. For operating instructions, please refer to the User manual for the appliance in question.

Read this manual before installing the refrigerator. Comply with installation specifications and dimensions. Follow the instructions to ensure that the refrigerator is installed safely and that it runs efficiently. Be aware of possible safety hazards when seeing alert symbols on the refrigerator as well as in this manual.

CERTIFICATION AND CODE REQUIREMENTS

The appliance is certified under the latest edition of ANSI Z21.19•CSA 1.4 Refrigerators using gas fuel. The installation must conform with local codes, or in absence of local codes, the following standards as applicable.

In the U.S. the installation must conform with:

- National Fuel Gas Code, ANSI Z223.1/NFPA 54 (latest edition).
- Recreational Vehicles Code, ANSI A119.2 (latest edition)
- Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280.

If an external electrical source is utilized, the refrigerator, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the National Electrical Code, ANSI/NFPA 70 - (latest edition).

In CANADA, the installation must conform with:

- Natural Gas and Propane Installation Code, CSA B149.1
- CSA Z240 RV Series, Recreational Vehicles.
- Current CSA Z240.4, Gas-equipped Recreational Vehicles and Mobile Housing.

If an external electrical source is utilized, the refrigerator, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the Canadian Electrical Code, CSA C22.1, Parts I and II - (latest edition).



VENTILATION REQUIREMENTS

GENERAL INFORMATION

Provide necessary air circulation over the cooling unit. Openings for air supply or for venting of combustion products shall have a minimum dimension of not less than 1/4 inch.

Certified installations require one roof vent and one lower side vent. Proper installation requires one lower fresh air intake and one upper exhaust vent. The ventilation kits shown in this manual have been certified for use with NEA1402 and NDA1402. The ventilation kits must be installed and used without modification.

Certified vent system kits		
Kit no.	Components	Part no.
5A	Roof Base	3103633.XXX*
	Roof Cover	3103634.XXX*
	Lower Side Vent	3109349.XXX*
	Power Vent Asm.	3108705.744**

* Fill in "XXX" with color code numbers. For color codes, contact your supplier.

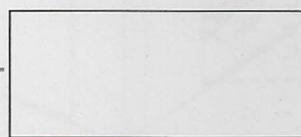
** Alternate instructions forwarded with the Ventilator Kit.

The lower vent of the recommended kits is provided with proper size openings. The flow of combustion and ventilating air must not be obstructed.

CAUTION

It is of especially importance that the airflow around the burner housing, the boiler insulation and the flow of combustion gases must not be obstructed. Items placed in the vicinity of the refrigerator compartment accordingly must be secured away from the refrigerator tubing and flue.

The lower side vent is fitted with a panel, which provides an adequate access opening for ready serviceability of the burner and control manifold of the refrigerator. This should be centered on the back of the refrigerator.



Lower vent cutout

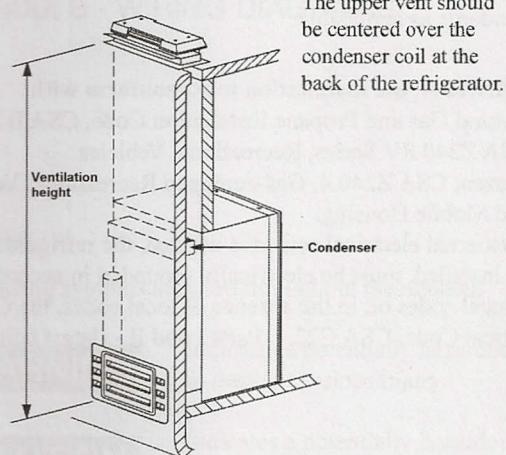
VENTILATION REQUIREMENTS

NDA1402

When installing the refrigerator, make sure to separate the combustion system from the living space of the mobile home or recreational vehicle. An opening toward the outside at floor level in the refrigerator compartment must be provided for ventilation of heavier-than-air fuel gases.

VENTILATION HEIGHTS

It is essential that all maximum or minimum dimensions are strictly maintained as the performance of the refrigerator is dependent on adequate flow of air over the rear of the refrigerator. For an installation with roof vent and lower side vent, the minimum ventilation height should be **69-1/8 inches (1756 mm)**.



OVERALL AND RECESS DIMENSIONS

OVERALL DIMENSIONS		
Height (A)	mm	1632
	inches	64-17/64
Width (B)	mm	855
	inches	33-11/16
Depth (C)	mm	752
	inches	29-5/8

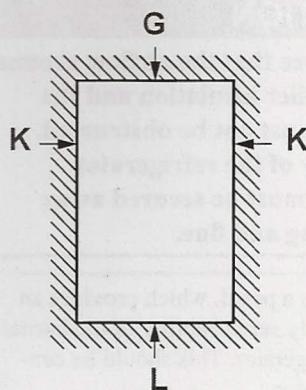
RECESS DIMENSIONS		
Height (H)	mm	1605
	inches	63-3/16
Width (W)	mm	832
	inches	32-3/4
Depth (D)	mm	662*
	inches	26-1/16*

* Add 1" (25 mm) depth for units with one or two optional ventilator fans.

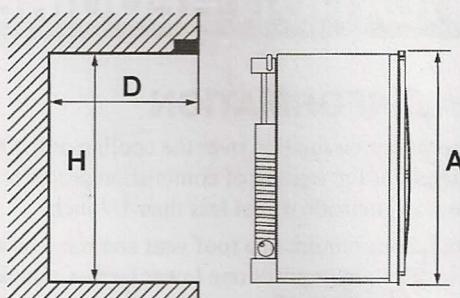
CLEARANCES

Minimum clearances (in inches) to combustible materials:

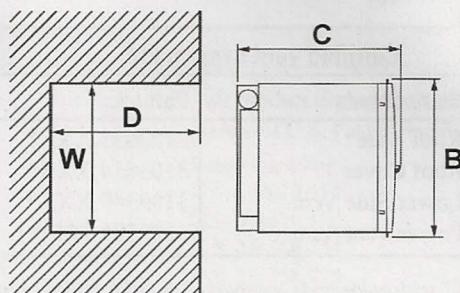
Top (G) 0
Side (K) 0
Bottom (L) 0



SIDEVIEW



VIEW FROM ABOVE

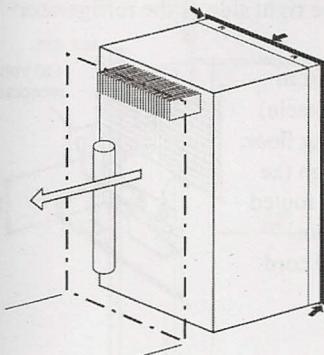


INSTALLATION PROCEDURE

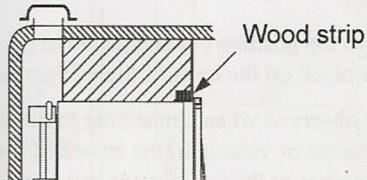
INSTALLING THE REFRIGERATOR

- Please use care when installing the refrigerator! This refrigerator is equipped with the latest vacuum insulated panel technology. These insulating panels are located on the top, back, bottom, sides and doors of the refrigerator. If the surface is punctured, loss of insulation will occur, resulting in poor refrigerator performance.
- The refrigerator must be installed in a substantial enclosure and must be level.
- Do not install the appliance directly on carpeting. Carpeting must be removed or protected by a metal or wood panel beneath the appliance, which extends at least full width and depth of the appliance.
- Clearances: In a proper installation there should be zero inches (0") clearance surrounding the sides, top, bottom and rear of the refrigerator to achieve proper air flow. All potential dead air pockets should be blocked or baffled to ensure that heat won't be trapped in these spaces and reduce efficiency.
- All areas within the recess in which the refrigerator is installed must be sealed. Make sure that there is a complete seal between the front frame of the refrigerator and the top, sides and bottom of the enclosure.

A length of sealing strip is applied to the rear surface of the front frame for this purpose. The sealing should provide a complete isolation of the appliance's combustion system from the vehicle interior. **Be careful not to damage the sealing strip when the refrigerator is put in place!**



- A wood strip must be in place across the upper opening of the enclosure. The top frame of the refrigerator will be anchored to the wood strip with screws.

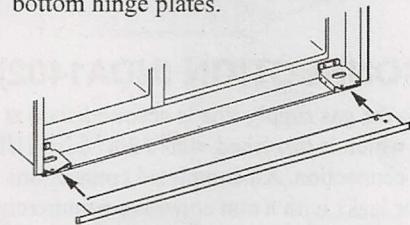
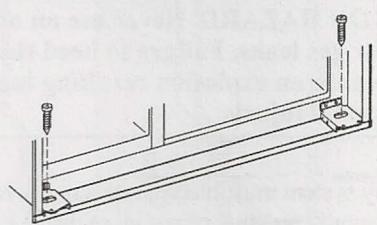


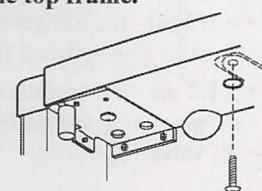
SECURING THE REFRIGERATOR

It is important to follow the sequence in securing refrigerator in enclosure since failure in doing so can cause leakage between the frame and cabinet. Any space between the counter, storage area or ceiling and top of the refrigerator greater than 1-1/2 inches should be blocked. The heat produced at the rear of the refrigerator will become trapped in this space, making the top of the refrigerator hot and reduce the efficiency of the refrigerator.

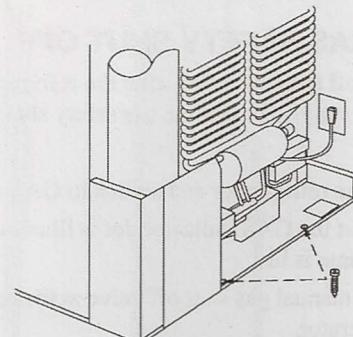
After the refrigerator is put in place (ensuring a combustion seal at the front frame), the refrigerator is to be secured in the enclosure with six screws (not included).

The six screws have to be installed in the following order:

1.  **Two screws installed through the front base.**
(Installation of the lower front strip.)
The refrigerator is provided with a lower front strip (shipped as a loose part). Attach the front strip after the refrigerator is set into the cutout opening.
 - a) Install the lower front strip by sliding it under the bottom hinge plates.
 - b) Secure the refrigerator and the lower front strip with two screws - one screw through each hinge.
2. **Two screws installed in the top frame.**
Open the doors and fasten the refrigerator with two screws through the holes underneath the top decoration panel.



3. **Two screws installed in the rear base.**



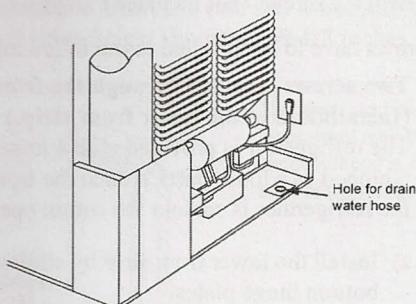
INSTALLATION PROCEDURE

INSTALLING THE DRAIN WATER HOSE

To install the drain water hose, follow these steps:



1. Drill a hole through flooring. It is essential that it is drilled in the cut out opening of the base plate at the rear of the refrigerator.
2. Make sure that the hose does not kink when run through the floor.
3. Seal around the hose that goes through the drilled hole. If a longer hose than supplied is required, the installer needs to supply one in order for the water to drain outside of the vehicle.



GAS CONNECTION (NDA1402)

Hook up to the gas supply line is accomplished at the manual gas valve, which is furnished with a 3/8" SAE (UNF 5/8" -18) male flare connection. All completed connections should be checked for leaks with a non corrosive commercial bubble solution.



WARNING

EXPLOSION HAZARD. Never use an open flame to check for gas leaks. Failure to heed this warning could cause an explosion resulting in death or severe personal injury.

The gas supply system must incorporate a pressure regulator to maintain a supply pressure of not more than 11 inches water column. When testing the gas supply system at test pressures:

- > 1/2 psi - the refrigerator and its individual shutoff valve must be disconnected from the gas supply piping system.
- ≤ 1/2 psi - the appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve.

For detailed instructions on the installation and connection to the gas supply, contact your dealer or distributor.

TESTING LP GAS SAFETY SHUT OFF

The gas safety shut off must be tested after the refrigerator is connected to LP gas supply. To test the gas safety shut off, follow these steps:



1. Turn on the refrigerator and switch to GAS mode.
2. Check that the GAS indicator dot is illuminated and the gas flame is lit.
3. Close the manual gas shut off valve at the back of the refrigerator.

4. Wait for approx. 6-7 minutes. The message "ch LP" is displayed (flashing).
5. Remove the protection cover.
6. Open the manual gas shut off valve. (Do not change any button positions on the control panel.)
7. Apply a non corrosive commercial bubble solution to the burner jet orifice. No bubbles should appear at the opening of the burner jet orifice. The presence of bubbles indicates a defective gas safety shut off, and service is required.
8. If no bubbles were present at the burner jet orifice, rinse it with fresh water. Be careful not to damage the burner jet orifice.
9. Put back the cover.
10. Switch the refrigerator OFF and back ON again. Normal operation of the burner should return.
11. Allow the burner to operate for a minimum of 5 minutes

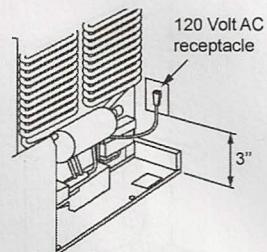
ELECTRICAL CONNECTION

120 V AC CONNECTION

The refrigerator is equipped with a three-prong (grounding) plug for your protection against shock hazards and should be plugged directly into a properly grounded three prong receptacle. DO NOT cut or remove the grounding prong from this plug!

The free length of the cord is 2 feet and it is recommended that the receptacle is located to the right side of the refrigerator (viewed from the rear).

The receptacle should be 3" (from the bottom of the plastic receptacle) above the refrigerator mounting floor. This allows easy access through the vent door. The cord should be routed to avoid direct contact with components that could damage the cord insulation.



12 V DC CONNECTION

The refrigerator requires a continuous 12 V DC supply to maintain the automatic energy selector system and the auto defrost control system to function.

The connection is made to the positive (+) and negative (-) terminals of the terminal block on the back of the refrigerator.

Correct polarity must be observed when connecting to the DC supply. Do not use the chassis or vehicle frame as one of the conductors. Connect two wires at the refrigerator and route to the DC supply.

Maximum fuse size for the DC supply is 10 A.

INSTALLATION PROCEDURE

It is important that the wires to the 12 V DC terminal is of proper wire size. The following table displays the recommended size and length of the conductor wires.

Wire length & size	
Length	Min. size
< 33 ft < 10 m	12 AWG
33 - 66 ft 10 - 20 m	10 AWG
> 66 ft > 20 m	8 AWG

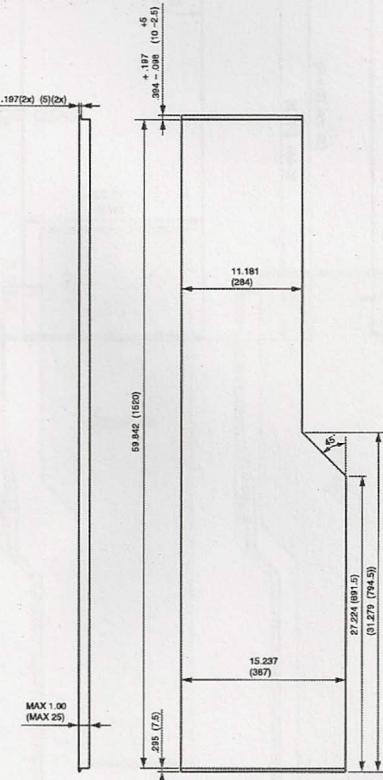
Example: If the distance between the refrigerator and the 12V DC supply is 20 ft., the total wire length is 40 ft. and a wire size of 10 AWG should be used.

MOUNTING THE DOOR PANELS

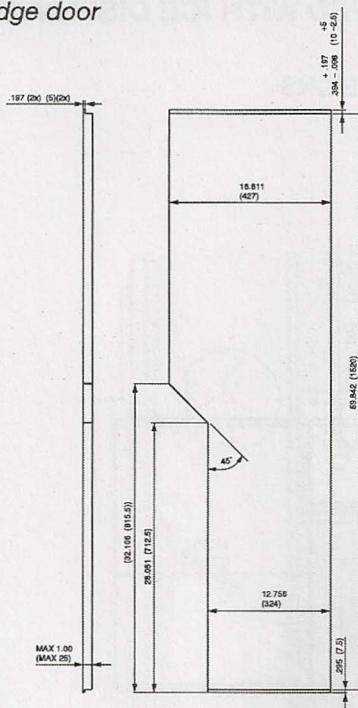
MODELS EQUIPPED WITH ICE MAKER

DOOR PANEL DIMENSIONS

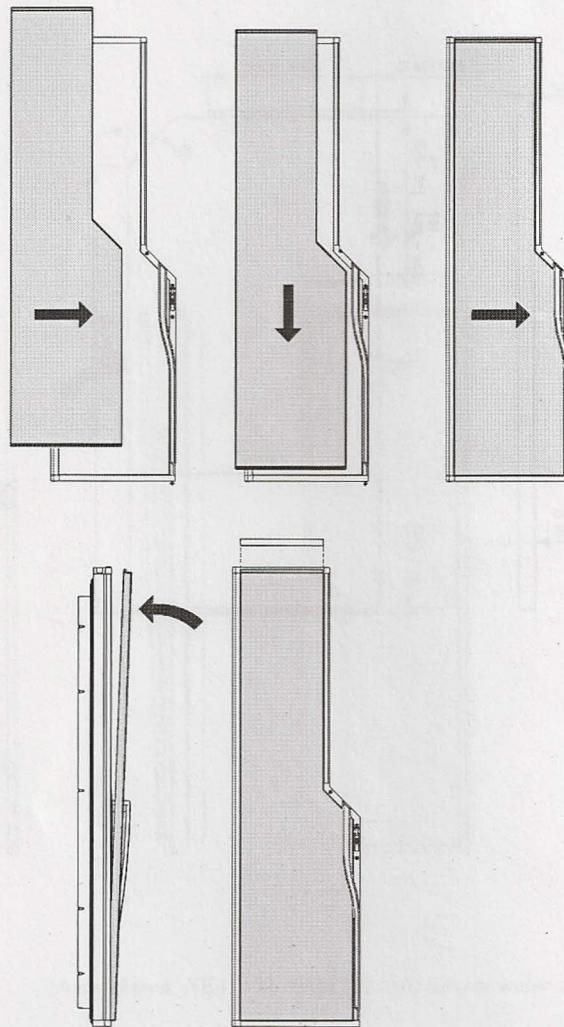
Freezer door



Fridge door



FITTING THE DOOR PANELS

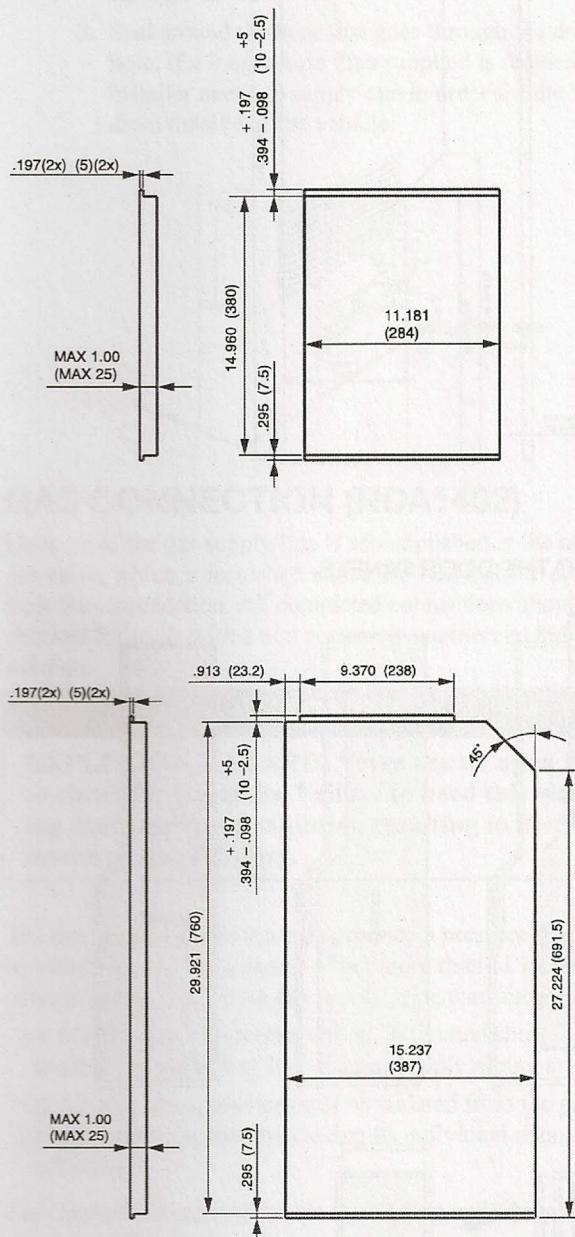


INSTALLATION PROCEDURE

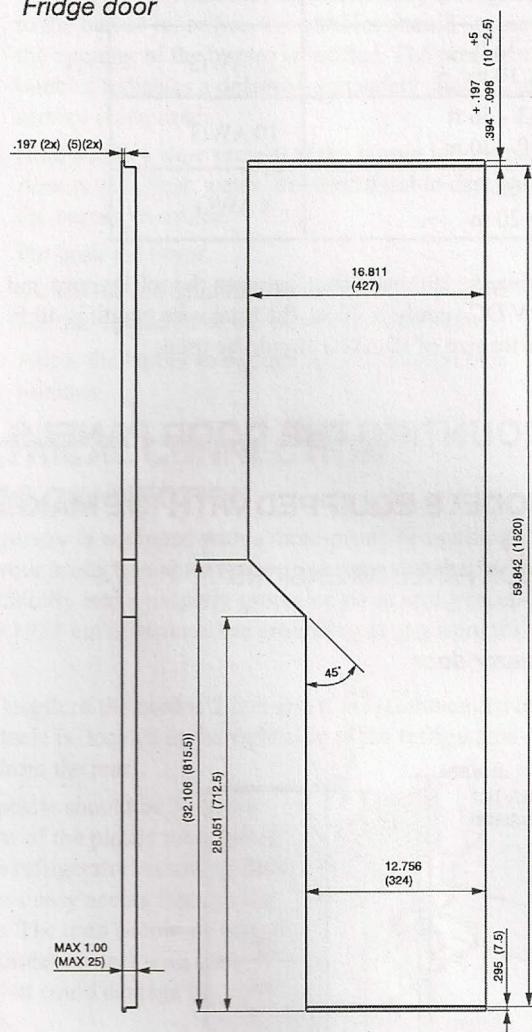
MODELS EQUIPPED WITH ICE DISPENSER / ICE & WATER DISPENSERS

DOOR PANEL DIMENSIONS

Freezer door



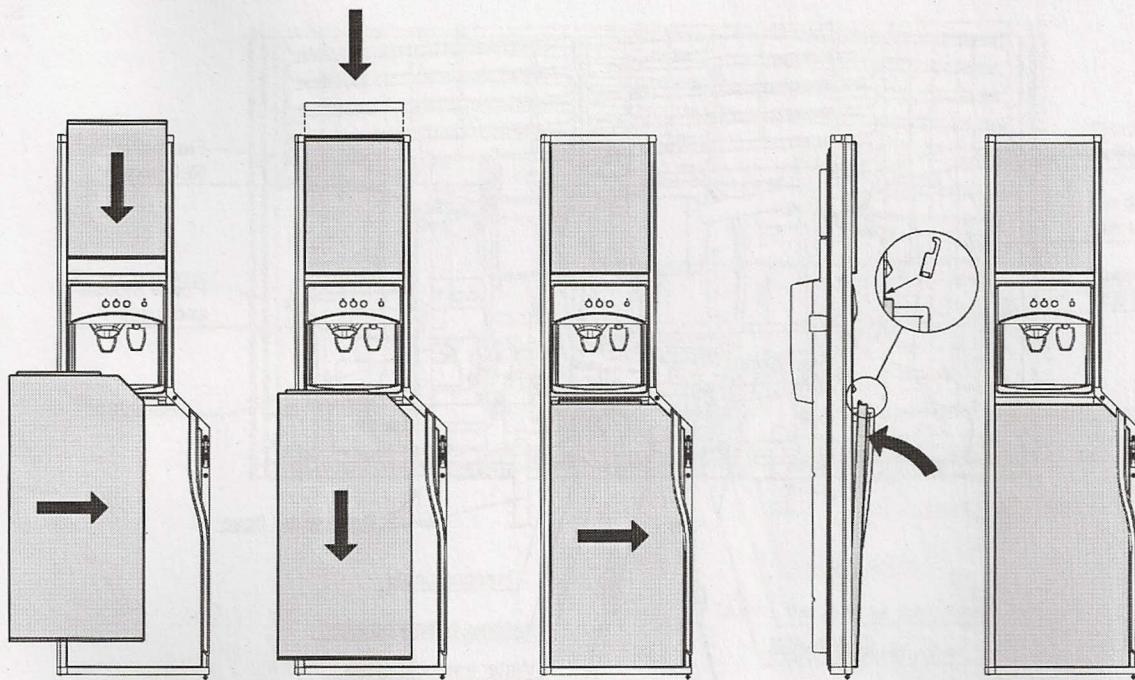
Fridge door



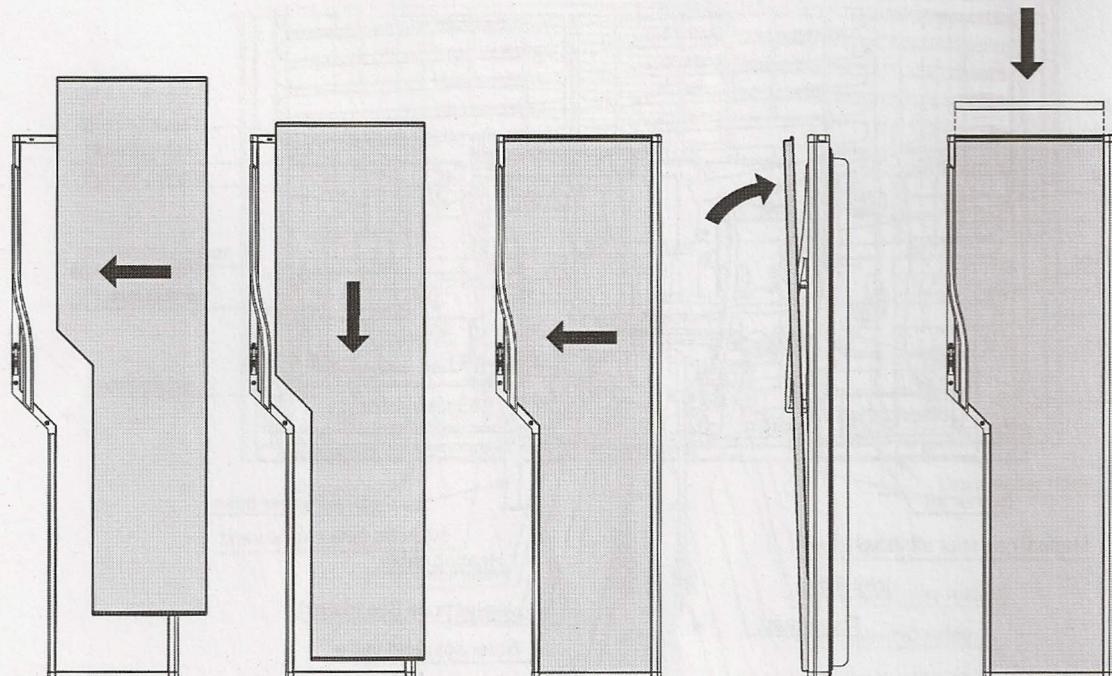
INSTALLATION PROCEDURE

FITTING THE DOOR PANELS

Freezer door



Fridge door

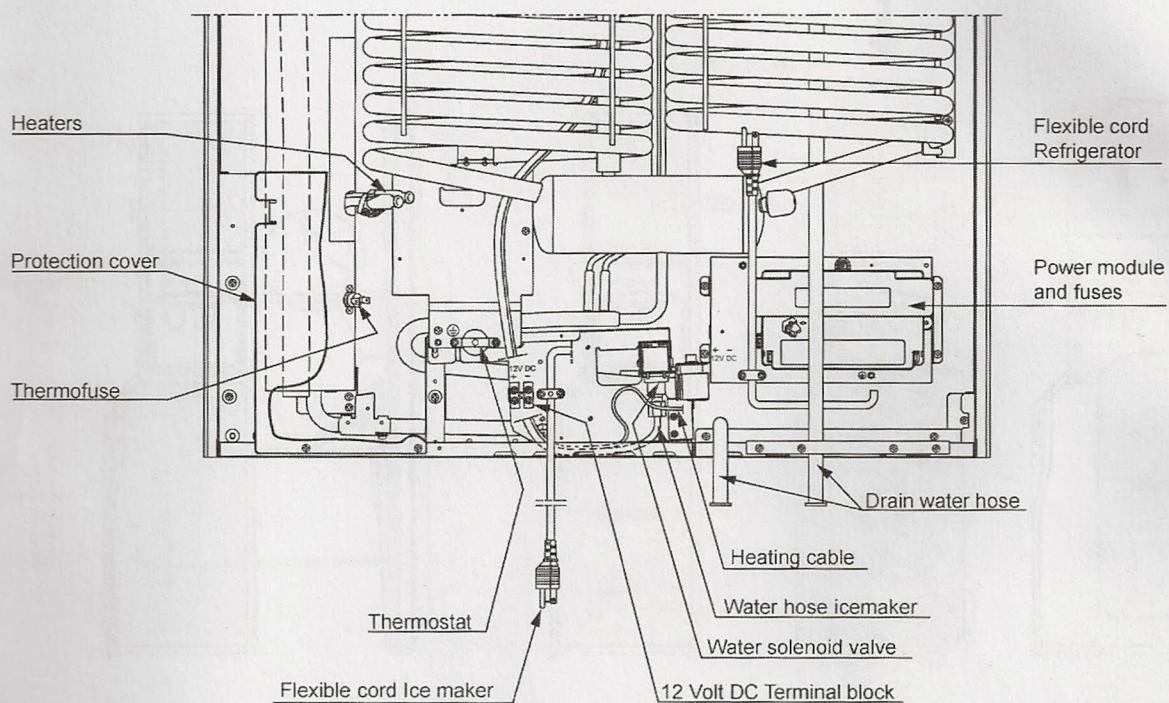


Model shown: NEA1402/NDA1402 with ice and water dispensers.

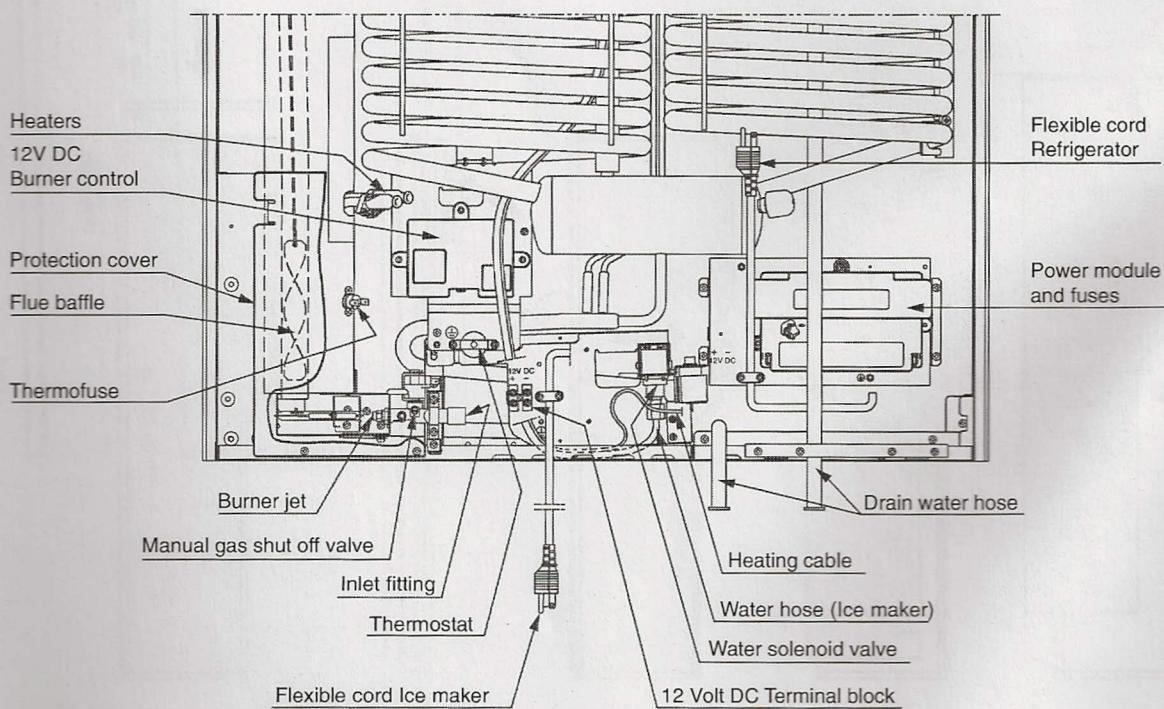
APPENDIX A - REARVIEW EQUIPMENT

MODELS EQUIPPED WITH ICE MAKER

NEA1402



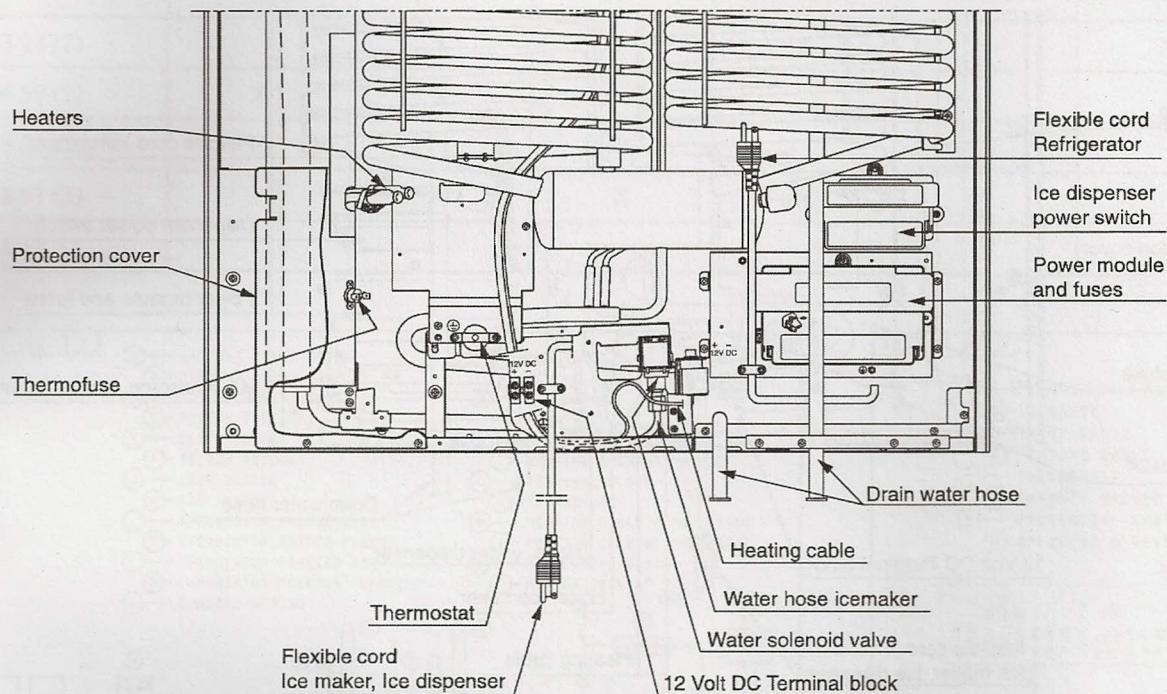
NDA1402



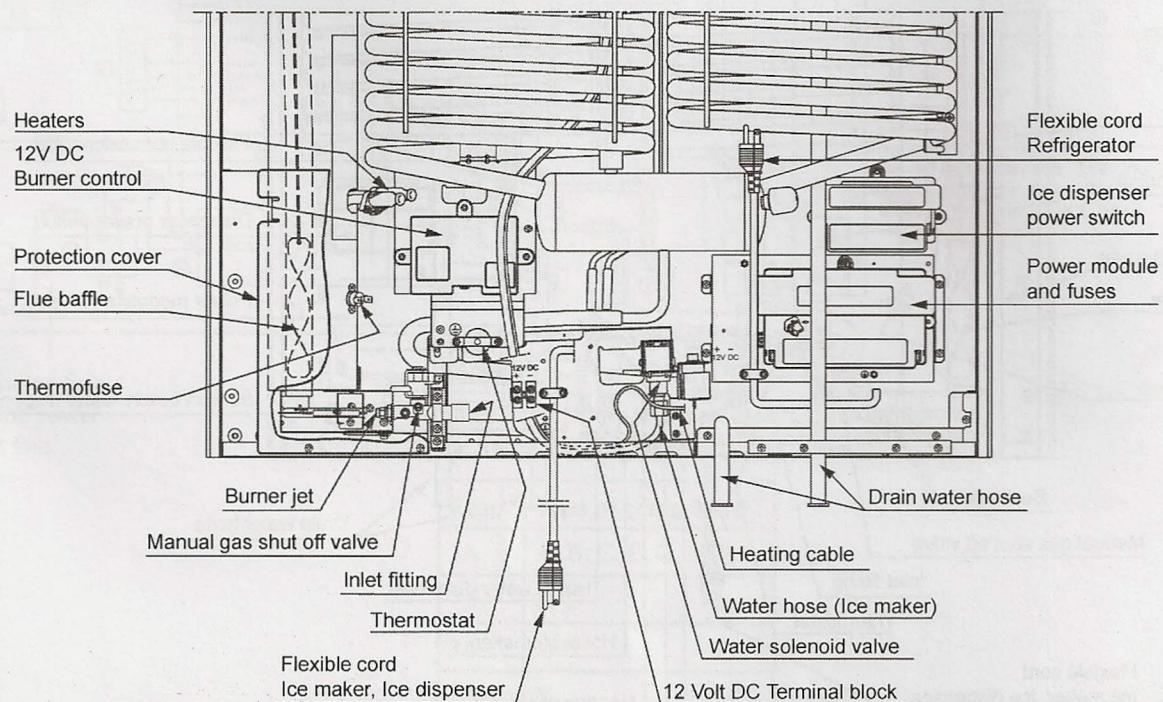
APPENDIX A - REARVIEW EQUIPMENT

MODELS EQUIPPED WITH ICE DISPENSER

NEA1402



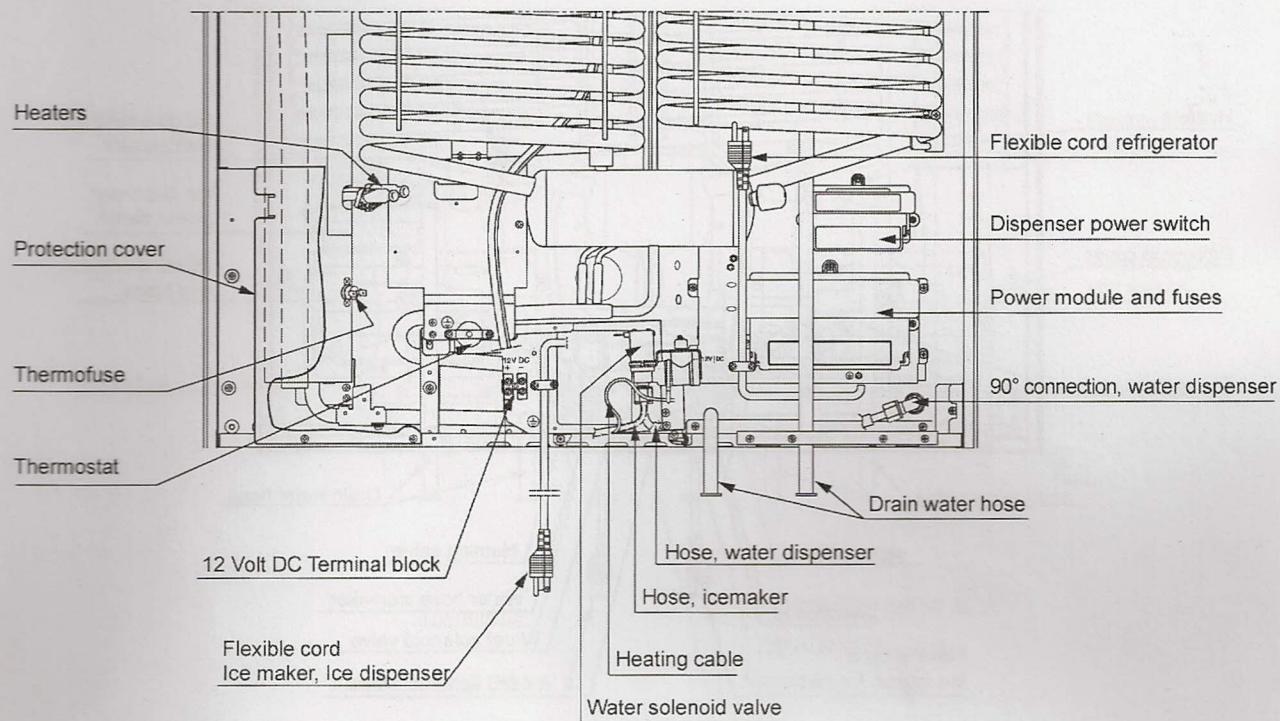
NDA1402



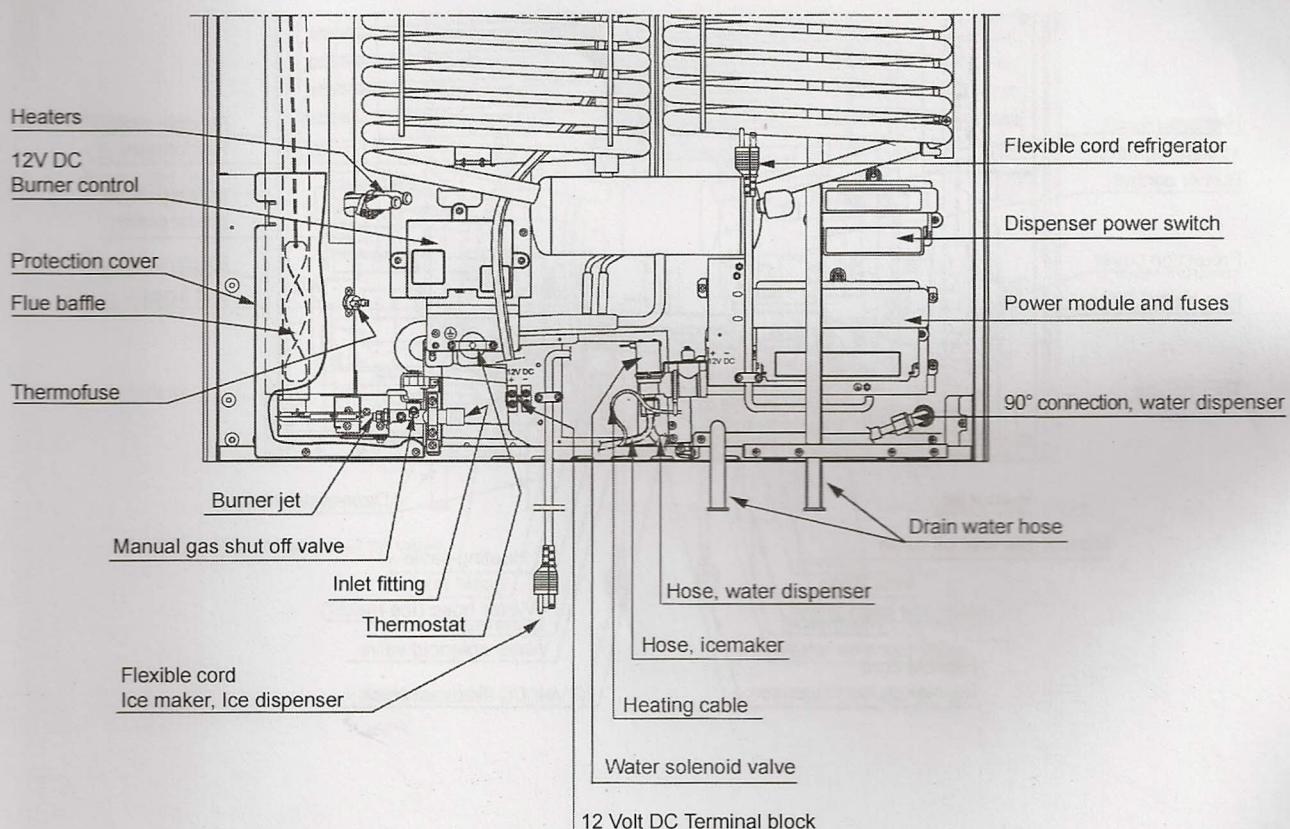
APPENDIX A - REARVIEW EQUIPMENT

MODELS EQUIPPED WITH ICE AND WATER DISPENSER

NEA1402



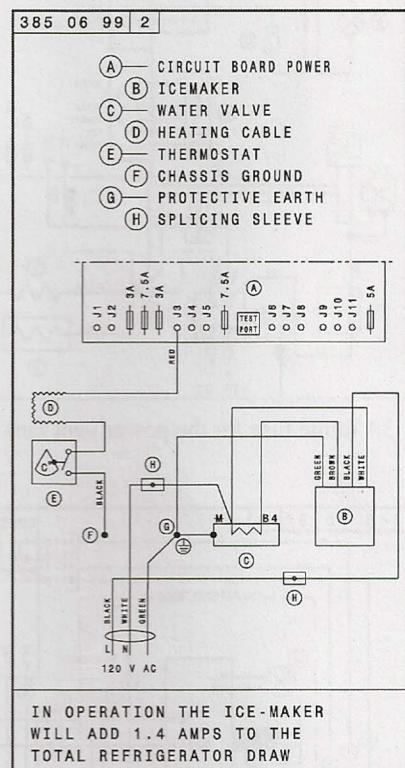
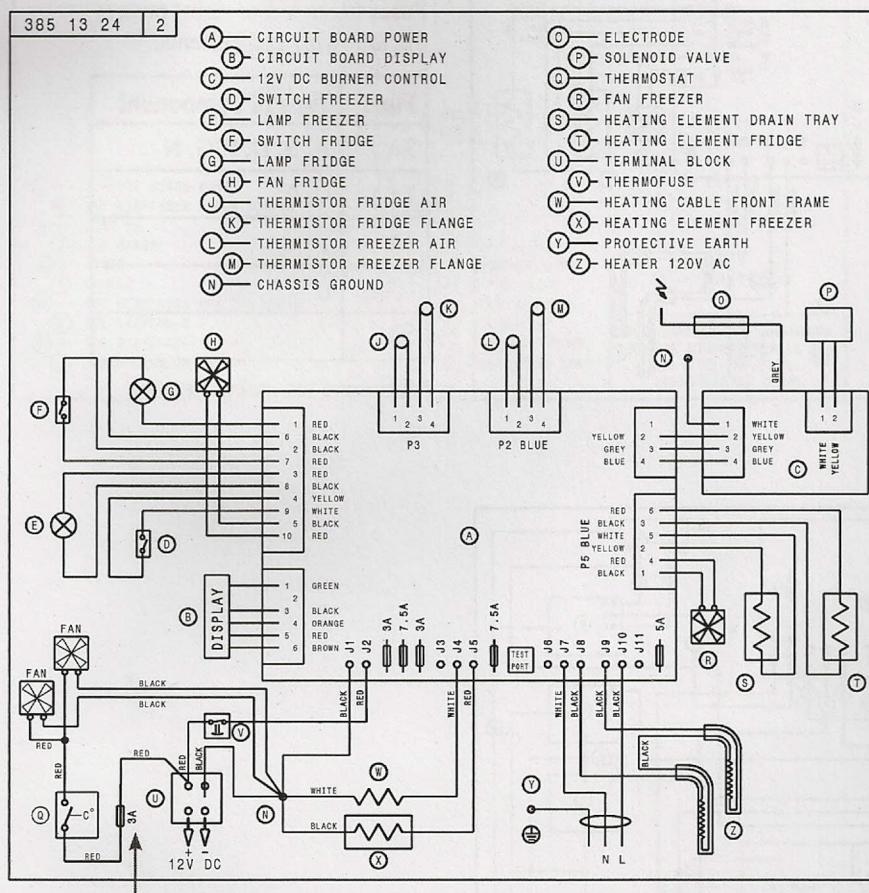
NDA1402



APPENDIX B - WIRING DIAGRAMS

The following table displays the different types of models and their corresponding wiring diagrams.

WIRING DIAGRAM	ICE MAKER		ICE DISPENSER		ICE & WATER DISPENSERS	
	NEA1402	NDA1402	NEA1402	NDA1402	NEA1402	NDA1402
385 13 24 (2)		X		X		X
385 06 99 (2)	X	X				
385 13 25 (2)	X		X		X	
385 08 97 (3)			X	X		
385 11 12					X	X



3A inline fuse
for the power
vent fans

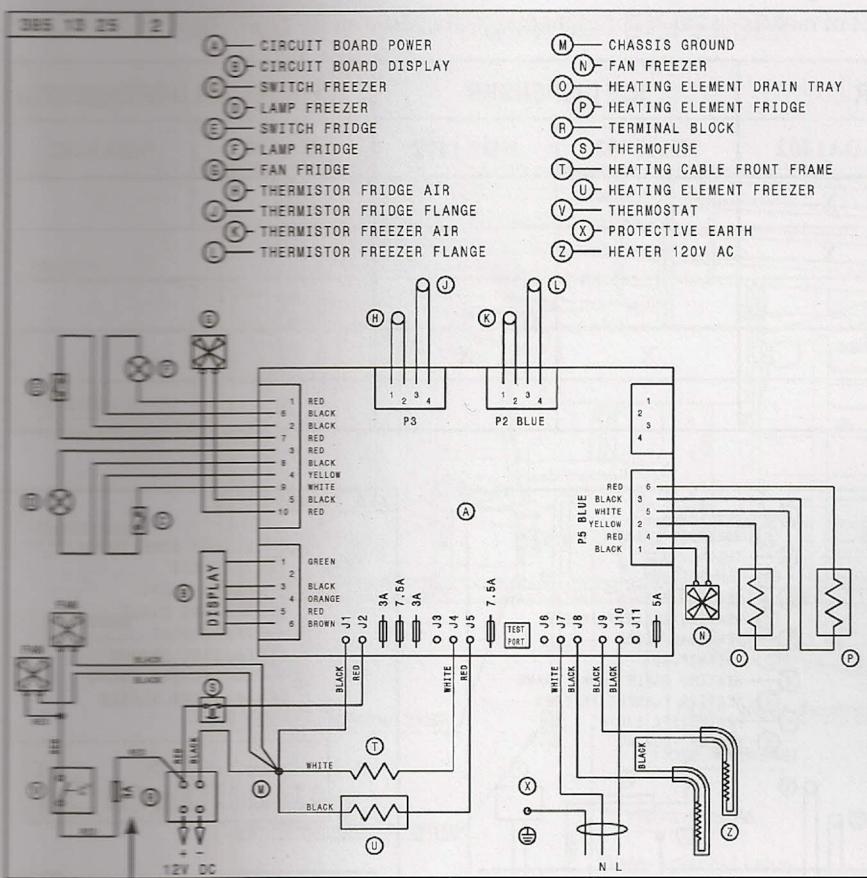
FUSES

Fuses (from left to right) protect the following components.

Fuse	Type of component
3A	A, B, C, E, G, H, P, R
7.5A	S, T
3A	W*
7.5A	X
5A	Z

* Optional ice maker heat-kit

APPENDIX B - WIRING DIAGRAMS



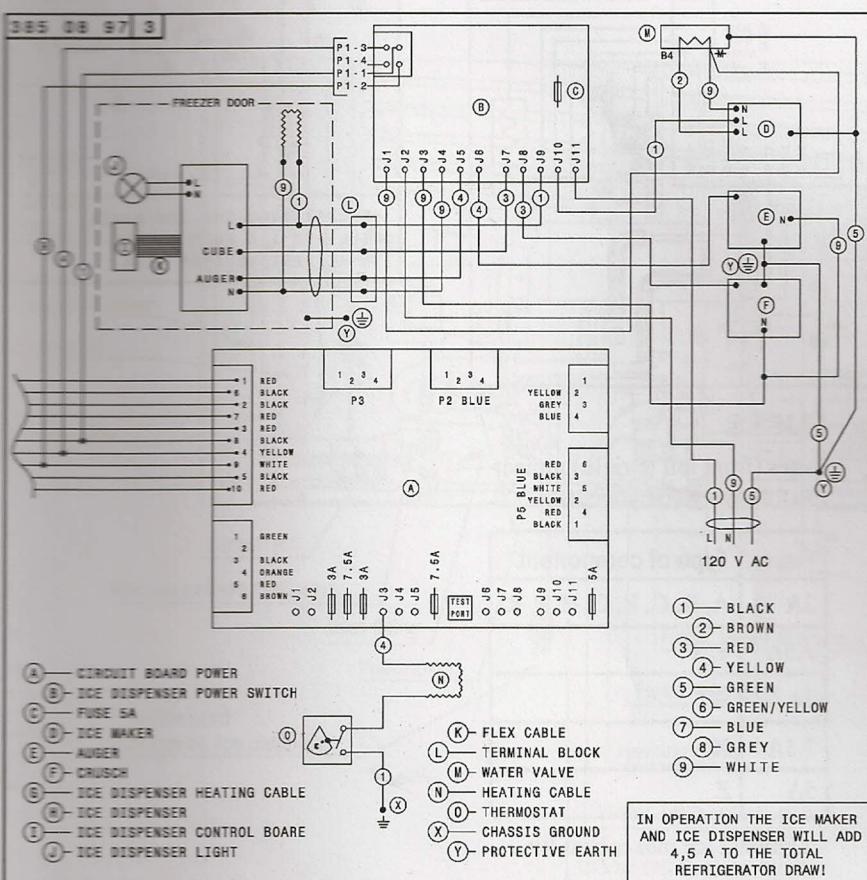
3A inline fuse for the power vent fans

FUSES

Fuses (from left to right) protect the following components.

Fuse	Type of component
3A	A, B, D, F, G, N
7.5A	O, P
3A	T*
7.5A	U
5A	Z

* Optional ice maker heat-kit



APPENDIX B - WIRING DIAGRAMS

